Message

From: Varljen, Mark [Mark.Varljen@Rocket.com]

Sent: 6/30/2016 8:54:02 PM

To: Keller, Lynn [Keller.Lynn@epa.gov]; MacDonald, Alex@Waterboards [Alex.MacDonald@waterboards.ca.gov];

Rohrer, Jim@DTSC [Jim.Rohrer@dtsc.ca.gov]; Santiago-Ocasio, Carmen [Santiago-Ocasio.Carmen@epa.gov]

Subject: RE: IOU Fate and Transport Modeling

Hi Lynn, as we discussed yesterday, I don't think a lot of time/effort from CH2MHill will be required. We are really just hopeful that we can obtain CH2MHill's concurrence on what remains to be done and the path forward to complete model development. It would also be useful, of course, if CH2MHill could be available help EA get up to speed.

We were going to write a memo (for review) to document what we think needs to be done, to obtain concurrence, but if the oversight contract is really limited, I'm sure this can be done less formally. If we all agree at the meeting next month on the path forward, we probably do not need the memo. We can document it in meeting minutes or something efficient like that.

I really think this is all that we need CH2MHill for. After that – review of the completion of the final steps, and use of the model itself once it has been developed, could be accomplished by EA. We initially hoped CH2MHill could review the completion of the final development steps, however given the contract situation, I think it will be OK to limit CH2MHill's involvement to concurrence on what the final development steps need to be (and helping to orient EA).

Just so you know, we believe the two main issues that we still need to resolve are:

- Definition of the source term (location of sources and rationale, 'multiple' lines of evidence for the decay function used),
- Methodology for the dual porosity formulation (porosity values and exchange rates between mobile and immobile porosities).

So in essence we just need CH2MHill to agree these are the two issues remaining, and then we can work with EA to get them addressed.

I hope this helps.

Mark

From: Keller, Lynn [mailto:Keller.Lynn@epa.gov] Sent: Wednesday, June 29, 2016 5:11 PM

To: MacDonald, Alex@Waterboards; Varljen, Mark; Rohrer, Jim@DTSC; Santiago-Ocasio, Carmen

Subject: [EXTERNAL] RE: IOU Fate and Transport Modeling

I'm holding 27 and 28 July in anticipation of Aerojet tech meetings also.

Mark, I left you a voicemail; I'll need a little more clarification on the level of effort involved and timing for this OU7 task since our contract ceiling for CH2M is very limited and ending for good in Dec. Please give me a call when you have a chance.

Thanks, Lynn

Lynn M. Keller, EI, EMP

US EPA Region 9 RPM 75 Hawthorne St, SFD 7-1 San Francisco, CA 94105 415.947.4162

From: MacDonald, Alex@Waterboards [mailto:Alex.MacDonald@waterboards.ca.gov]

Sent: Wednesday, June 29, 2016 2:38 PM

To: Varljen, Mark < Mark. Varljen@Rocket.com>; Keller, Lynn < Keller. Lynn@epa.gov>; Rohrer, Jim@DTSC

<Jim.Rohrer@dtsc.ca.gov>; Santiago-Ocasio, Carmen <Santiago-Ocasio.Carmen@epa.gov>

Subject: RE: IOU Fate and Transport Modeling

I am available all day on the 26th, 27th and 28th. I believe our regular tech meeting is on for the 28th, at least that is what is on my calendar.

Alex

From: Varljen, Mark [mailto:Mark.Varljen@Rocket.com]

Sent: Wednesday, June 29, 2016 10:55 AM

To: Keller, Lynn; Rohrer, Jim@DTSC; MacDonald, Alex@Waterboards; Santiago-Ocasio, Carmen

Subject: IOU Fate and Transport Modeling

As part of the IOU RI/FS process, quite a bit of work has already been completed cooperatively with the Agencies regarding development of a groundwater fate and transport modeling approach that will be used in the IOU remedy design and selection process.

It is my understanding that CH2MHill was closely involved with the work completed to date on this topic, and we believe in the interest of moving the IOU RI/FS forward without unnecessary delay and expense, that we should attempt to finalize the approach while CH2MHill is still able to provide support.

To that end, I would like to propose that we schedule a special IOU modeling meeting in conjunction with the next scheduled Technical Meeting which I believe is to be held the last week of July.

In preparation for this meeting, we will prepare a summary of work completed to date, including a document index, and list the outstanding issues that we believe still require attention. This would be distributed prior to the meeting. Since many of us are new to the project, this meeting will be an opportunity for us all to be briefed on the modeling work completed so far, as well as provide an opportunity to discuss the outstanding issues and hopefully agree on steps to be taken to address the remaining issues

Please let me know if this approach is agreeable, and specifically what dates and times would be best for this meeting. I believe we should allow at least two hours for the meeting. Our preferred dates are July 27 or 28th. We will not be available July 29th.

Thanks in advance for your consideration.

Mark D. Varljen

Manager, Environmental Remediation



11260 Pyrites Way, Suite 125 Rancho Cordova, CA 95670 phone: (916) 355-2121 cell: (360) 632-2829

mark.varljen@rocket.com